



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,811	10/20/2003	Takeshi Ono	2003_1458A	2618
513 7590 07/23/2007 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			EXAMINER WEINSTEIN, LEONARD J	
			ART UNIT 3746	PAPER NUMBER
			MAIL DATE 07/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/687,811	Applicant(s) ONO ET AL.	
	Examiner Leonard J. Weinstein	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the Request for Continued Examination of July 6, 2007 to consider the amendment of June 5, 2007. It is noted that independent claim 13 has been amended. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 13-17, 19-20, 22-24, 26-27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarleton 2,141,053 in view of Ozu et al. 6,089,834. Tarleton teaches all the limitations as claimed for a hermetically sealed electrically driving compressor including: a compressor element 62 elastically supported, via 70 in an enclosed container 32, a cup-shaped stopper 74 fixed to an inner upper part of said enclosed container (fig. 1 – examiner comment 1), said cup-shaped stopper 74 having a curved protrusion (fig. 4 – examiner comment 7) extending from a peripheral surface 84 of said cup-shaped stopper 74, a crankshaft 48

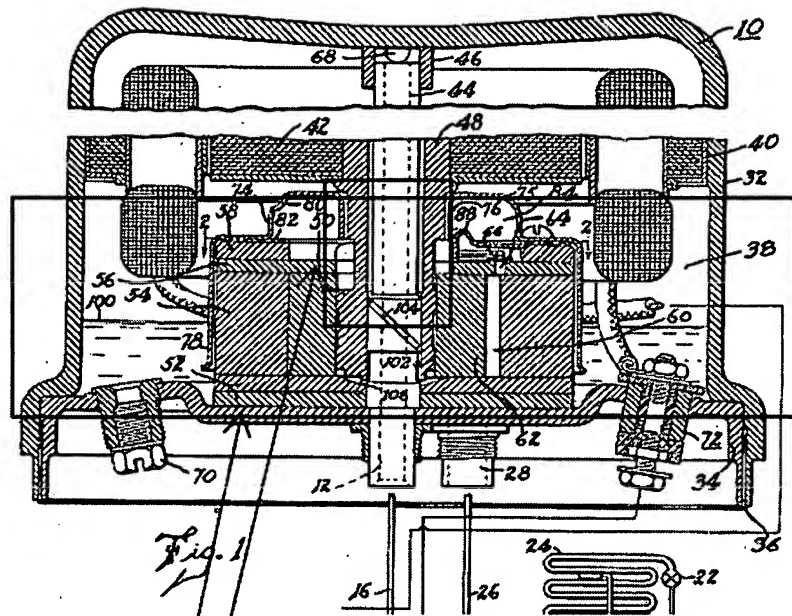
Art Unit: 3746

associated with said compressor element, with an upper end portion (fig. 1 – examiner comment #2) of said crankshaft 48 extending into said cup-shaped stopper 74 and a motor element, 40 and 42, for driving said compressor element 62; a curved protrusion (fig. 4 – examiner comment 7) having an apex (fig. 2 and 4 – examiner comment 3) and flanks (fig. 2 and 4 – examiner comment 4) on opposite sides of said apex, with said flanks (fig. 2 and 4 – examiner comment 4) each have a radius of curvature (fig. 2 – examiner comment 5) such that a center (fig. 2 – examiner comment 6) of the radius of curvature is positioned outside of said cup-shaped stopper 74; further in figures 2 and 4, Tarleton teaches flanks that are generally symmetrical relative to one another about an apex (fig. 2 and 4 – examiner comment 3); a cup-shaped stopper 74 comprises a ring member 88, and said curved protrusion (fig. 2 and 4 – examiner comment 7) is formed by deforming an outer peripheral portion (fig. 4 – examiner comment 8) of said ring member 88 such that a resulting deformation of an inner peripheral portion of said ring member corresponds to said curved protrusion (fig. 2 and 4 – examiner comment 7); and figure 4 teaches a curved protrusion (fig. 2 and 4 – examiner comment 3) that extends along an axial direction of said cup-shaped stopper 74. Tarlton fails to teach the following limitation that is taught by Ozu for a hermetic compressor including: cup-shaped stopper 9A having a protrusion, as defined by element 9c above element 36, extending inwardly from an inner innermost peripheral surface 9c, as shown in figure 7 such that an end portion, portion of element 2 surrounded by element 9A, of a crankshaft 2 is designed to contact said protrusion, as defined by element 9c above element 36, upon oscillation of said compressor element 20 (Ozu – col. 15 ll. 48-54). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify provide a thrust receiving structural component on an inner peripheral surface of a shaft receiving stopper to come in contact with

Art Unit: 3746

an outer surface of a crankshaft in order to prevent vibration of a compressor unit during operation (Ozu – col. 3 ll. 5-9). Figures 1, 2, and 4 of Tarleton are provided with examiner's comments on the following page.

Note the limitation, recited in claims 16, 19, 23, and 26, of a curved protrusion formed by the deforming an outer peripheral portion of a ring member is considered a product-by-process claim. Tarleton teaches the limitation of a curved protrusion and an inner ring member as discussed above, wherein the curved protrusion could be formed by deforming the inner ring member. Section 2113 of chapter 2100 of the MPEP states that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).



Examiner Comment #1 -
Enclosed Container
within housing
hermetically sealed
compressor (element 32)

Examiner Comment #2 -
Upper end portion of shaft
(element 48) within
enclosure of comment #1

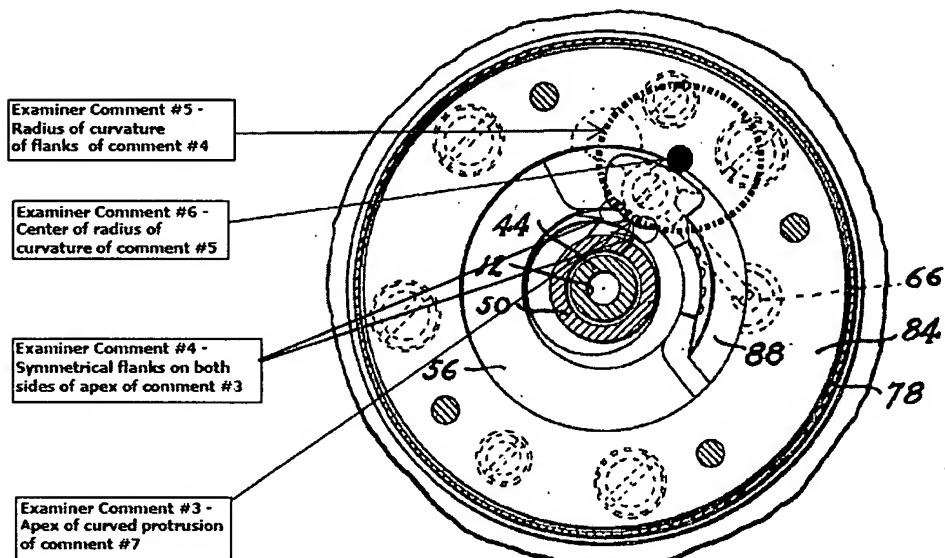
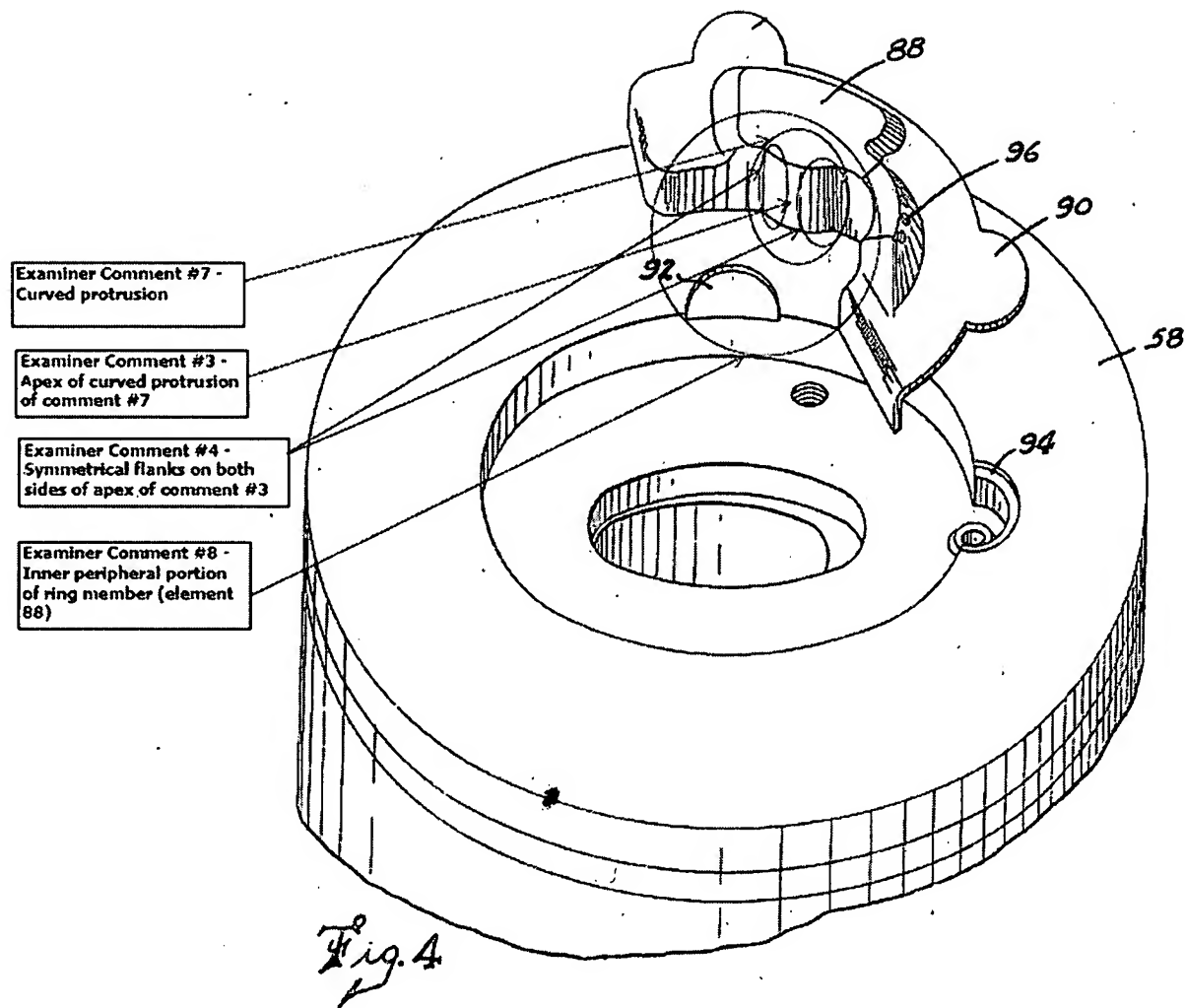


Fig. 2



5. Claims 18, 21, 25, 28, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarleton 2,141,053 i.v. Ozu et al. 6,089,834 as applied to claims 13-17, 22, 26, and 29 above, and further in view of Suzuki et al. 3,664,771 and Park 6,422,833. A combination of Tarleton and Ozu teaches all the limitations as discussed but fails to teach the following taught by Suzuki: a compressor element that is elastically supported, via 3 and 4, having a compressor chamber 11 and a piston 12 for reciprocating within said compressor chamber 11 in back and forth directions, and a protrusion extending generally orthogonal to the

Art Unit: 3746

movement of the piston. Further Park teaches a cup shaped cylinder 60 mounted onto the inner surface of the top portion 11 of a hermetically sealed compressor casing 10 receiving a top end of a crankshaft 2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a curved protrusion on an inner peripheral surface of the protector of Suzuki in a compressor configuration having the resonance reducer of Park to reduce noise due to vibration and reduce damage to a casing due to contact with the shaft during normal operation (Park – col. 1 ll. 59-64 and col. 2 ll. 40-47).

Response to Arguments

6. Applicant's arguments with respect to claims 13-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

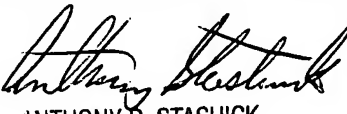
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are cited on form 892 herewith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is 571-272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


LJW
ANTHONY D. STASHICK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700